

LAKE HOOD WATER/GRAVEL AIRPORT
Runway Safety Action Team Report and Surface Incident Prevention Plan
2013
LHD-SIPP-03-28-2013
Date: 28 March, 2013

Introduction:

The Alaskan Region Runway Safety Action Team conducted a Runway Safety Action Team Meeting for the Lake Hood Water/Gravel Airport (LHD/Z41) on March 28, 2013. The meeting was held at the Alaska Aviation Museum on Aircraft Drive. Mr. Tim Coons, Lake Hood Water/ Gravel Airport Manager, Ms Ingrid Rinker, FAA Alaskan Region Runway Safety Program Manager, and Mr. David Chilson, Anchorage ATCT co-hosted the meeting. The March 28, 2013 Runway Safety Action Team visit/meetings were conducted in accordance with FAA Order 7050.1 to administer a runway incursion prevention safety meeting at all towered airports.

Present at the Managers/Users meeting were:

Brienna Demeris, DOT&PF Anchorage Airport Environmental
Bob Lewis FAA Regional Administrator, Alaska
Maurice Hendrickson, FAA FFAST Team
Cathy Gleason, Turnagain Council
Kauai Hayden, ATC Anchorage ATCT
Colby Snow, ATC Anchorage ATCT
Seung-Kyun Shin, ADOT&PF
Bill Floyd, Owner, Lake Hood Inn
Suzanne Rebich, Aircraft Owner
Jim Seeley, Lake Hood Pilots Assoc.
Mary O'Connor CDC / NIOSH
Tow Louas, Lake Hood Space 609
Steve Fishback, Lake Hood Space 609
Kent Peterson, FAA Anchorage District ATM
Greg Holt, FAA Deputy Regional Administrator, Alaska
Gordon Edmiston, FAA ANC ATCT
Elwood Brehmer, AK Journal of Commerce
Zaramie Lindseth, DOT ANC Airfield Maintenance
Robin Broomfield, FAA ANC FSDO
Mark Madden, LHD Pilots Assoc.
Lon Knowles, DOT&PF Aviation Design
Sterling Larson, Chugach Electric
Steven Lematta, Aircraft Owner
Gabriel Mahns, FAA Airports Division
Tim Lufkin, ANC Intl
John Parrott, ANC Airport Manager
John Stocker, Anchorage Operations
Dee Hanson, Alaska Airmen's Association
Merle Akers, Private pilot

Kimber Amundson, Lake Hood Tie Down Office
Tim Coons, LHD Airport Manager
David Chilson, ANC ATCT
Ingrid Rinker, FAA Runway Safety Office

Background

Lake Hood Seaplane Base (LHD) is a wheeled aircraft and seaplane base located approximately 3 miles southwest of the central business district of Anchorage, Alaska and adjacent to Ted Stevens Anchorage International Airport. It encompasses the original Lake Spenard and Lake Hood into one single seaplane base of operations along with a gravel strip. The State of Alaska began dredging operations in 1939 to combine these lakes into one seaplane base of operations. Originally Lake Spenard was used for seaplane operations as it was the slightly larger of the two lakes. The current gravel strip was later added to accommodate wheeled aircraft. In 1975 a second lane was dredged parallel to the east-west water lane to accommodate slow speed taxi operations of seaplanes. In the mid 80s lights were added to the east-west water landing/take off lane. Operating continuously and open to the public, the Lake Hood complex is the busiest seaplane base in the world and now handles over 63,000 general aviation aircraft operations per year (approximately 178 operations per day). The summer flying season is by far the busiest time for Lake Hood with a daily average of over 340 operations.

Airport Safety Report Records

The following events were reviewed for location and type of incident in a graphical depiction of the airport. The most recent events were discussed in depth with a description of the corrective action taken by Lake Hood Airport Staff.

Lake Hood RI History FY 2010-2013

Fiscal Year	Date of Event	Type	Severity Category	Report Narrative
2013	11/24/2012	V/PD	D	A Pedestrian on a bicycle was observed by ATC in the west water-lane (frozen) of Lake Hood. No conflicts.
	3/5/2013	V/PD	C	C180 was cleared for takeoff at LHD Lake Hood (Ski Strip) when a pedestrian came out of the trees and walked from the south side of the lake entering the frozen water-lane movement area without authorization as the C180 was departing. Pedestrian crossed the east/west water-lane from the south to the north as the C180 was departing to the east. Proximity distance is unknown. The individual was apprehended by airport authorities.

Fiscal Year	Date of Event	Type	Severity Category	Report Narrative
2012	1/18/2012	V/PD	D	A pedestrian walking a dog was observed crossing the Lake Hood (LHD) North South water lane (frozen snow covered lake, temperature -20 Fahrenheit). The pedestrian entered near Float Plane Point, proceeded west and exited at Lake Air complex. Airport Operations was notified and made contact with the pedestrian.
	3/25/2012	V/PD	D	AL3, reported a pedestrian walking on the frozen lake as he was taxiing. Tower observed the pedestrian walk across the north side of the south cove from the Lake Air complex to the Aviation Museum. Airport police were notified and the pedestrian who was apprehended is a locally based pilot. The AL3 pilot reported that he may have to delay his takeoff for the pedestrian briefly, however the pedestrian stopped to wait and 10 seconds later the pilot continued his takeoff. Airport Manager verified that pedestrian crossed the North-South Waterlane
	5/19/2012	OI	C	PA18 was cleared to land on Runway 31. After landing, PA18 exited at Taxiway Hotel 3. Taxiway Hotel 3 was closed as stated via ATIS & NOTAM. Second PA18 was ready for departure at Runway 31. Local Controller (LC) told the first PA18 that Taxiway Hotel 3 was closed and asked if he wanted a clearance to back taxi to an available exit point. First PA18 stated he wanted to hold his back taxi to allow the other PA18 to depart. LC had no knowledge of barriers or any indication of blockage precluding the PA18 from being clear of Runway 31. LC asked the first PA18 if he was clear of the runway, and he replied ?I am clear?. LC departed the second PA18 and then back taxied the first PA18. Airport operations reported that there were barriers in place, located at the hold short lines, meaning that the PA18 was not clear of the runway safety area.
	5/23/2012	PD	C	PA18 not in communication with LHD Tower was observed leaving the South Pot Hole of LHD, taxiing abeam Float Plane Point into the active East/West Water lane and into the Fish and Wildlife Cove. Several attempts made by the controller to contact the aircraft were unsuccessful. PA18 appeared to have radio problems. Finally, a transmission in the blind to the PA18 (identified by tail number) gave reason to believe the aircraft was in receive only mode. PA18 then taxied back to the South Cove, reentering the Sea lane without communication, causing several a/c to be sent around.
	6/1/2012	PD	D	DHC2, was observed taxiing eastbound from the west side of Lake Hood. DHC2 crossed the north/south water lane without ATC authorization and parked at Anchorage Airmens Association. Tower was unable to contact pilot and ask airport operation to attempt contact. Later the Tower Supervisor spoke with pilot of the DHC2. The pilot advised that his airplane was having radio problems on the ground. The pilot did fly in earlier in the day without incident. The pilot stated that he was staying as close as possible to the orange cones believing this would keep him off the active water-lanes. It was explained to the pilot that he actually crossed the north/south water-lane.

	9/21/2012	PD	C	C185 (on floats) was cleared for takeoff to the north from water lane (4-22) and was in the step phase when C172 (also on floats) was blown onto the north end of the water lane. C172 was pushed onto the water at the North Pothole. C172 made six attempts to call the tower without success. Takeoff clearance was immediately cancelled when C172 entered the same water-lane without a clearance. ATC was unable to determine the closest proximity because there are no markings available on the water lane but initial estimates indicated a lateral separation of approximately 300 feet.
Fiscal Year	Date of Event	Type	Severity Category	Report Narrative
2011	3/4/2011	V/PD	D	A pedestrian ran across active north water lane without authorization just north of south cove behind departing traffic. No loss of separation reported.
	5/24/2011	PD	D	A DEHAVILLAND DHC-2 was initially taxied for a west departure and en-route to west water lane the pilot experienced a stuck mike. LHD ATCT numerous attempts to re-established contact with the pilot were unsuccessful. The DHC-2 then entered the west water lane and departed without clearance. No conflicts reported.
	6/24/2011	PD	D	A Cessna C185 taxied without authorization and crossed the active north/south water lane without clearance. No conflicts reported.
	6/28/2011	V/PD	C	A AEROSPORT SQ2 (HXB experimental) was cleared for takeoff on Runway 31 full length (Z41). The pilot reported two pedestrians on the runway near Taxiway H3 and the SQ2's takeoff clearance was cancelled. The SQ2 had not started takeoff roll. Closest horizontal proximity was more than 1,000 feet.
	7/21/2011	PD	C	A Piper PA18 was instructed to hold short of west water lane which was read back correctly. The PA18 then taxied into the west water lane without clearance near float plane point thus conflicting with Cessna C185 decelerating after landing on the west water lane at the time. The C185 exited the water lane approximately 1,000 feet from position of PA18, the closest horizontal proximity reported.
	8/31/2011	PD	D	A Piper PA14 received departure routing and squawk code from CD. The PA14 then entered and departed from the west water lane without clearance. No conflicts reported. Subsequently the PA14 entered Class C airspace without authorization.
Fiscal Year	Date of Event	Type	Severity Category	Report Narrative
2010	1/5/2010	V/PD	D	Four pedestrians entered the east/west water lane on ice without authorization. No aircraft were affected and no conflicts reported.
	3/8/2010	PD	D	A Cessna C185 was the lead in a flight of two SVFR off Runway 31 (Z41) at LHD. The C185 received the SVFR clearance from ANC CD. Subsequently the lead C185 departed off Runway 31 without clearance. The second aircraft remained on the ground. No conflicts reported.

3/20/2010	V/PD	D	A pedestrian walking a dog entered the west water lane from fish and wildlife cove without authorization and proceeded eastbound. A Piper PA18 was on base for the north water lane (west of the west water lane) which appeared to frighten the dog which then ran back westbound in the west water lane and pedestrian followed. Both were well clear of the RSA for the north water lane and exited back through the cove they entered from.
3/26/2010	PD	D	A ENSTROM EN28 was advised that helicopters could not land on Z41 landing strip and that two other landing areas were available. The pilot requested a landing clearance and LC again advised that a landing clearance could not be issued for Z41. The EN28 proceeded to land on Z41 without clearance. No conflicts reported.
4/30/2010	OI	D	A Cessna C206 was issued taxi to Runway 25 at MRI. The pilot contacted LHD ATCT in error for takeoff on Runway 25. LHD Local (LC) did not determine the position of the C206 and cleared the aircraft for takeoff on Runway 31 at LHD. LHD LC then asked the C206 if they were departing MRI and pilot replied in the affirmative and was already airborne. LHD LC instructed the C206 to contact MRI immediately and then coordinated the MRI and advised of the situation. No loss of separation reported.
8/4/2010	PD	D	LHD was below basic VFR weather requiring LHD traffic to receive special (SVFR) clearance. A DEHAVILLAND DHC2A received a SVFR clearance. Subsequently the DHC2A departed from the west water lane without takeoff clearance. No conflicts reported.
8/20/2010	OI	C	A Piper PA18 was cleared to land on Runway 31 (Z41) at LHD. A Cessna C172 was subsequently cleared to land same runway. A situation arose with an aircraft landing on west water lane then two aircraft called over each other and LHD Local (LC) thought one of them was the Piper calling clear of Runway 31. The C172 initiated go around due to the Piper traffic on the runway and LC issued instructions to enter right traffic. The C172 was already past the landing threshold when pilot initiated go around and no go around instructions were issued. The Piper was exiting the runway at H1 and was not over flown. Closest horizontal proximity reported was 1,500 feet.

Airfield Inspection

An inspection/tour of the airfield was done with Tim Coons, Ingrid Rinker and David Chilson via transportation provided by the airport manager.

a) Operations: The Anchorage Lake Hood Complex has one water-landing area (three directions) and one gravel runway 14/32 @ 2200' long by 70' wide. The east/west water lane (primary) is listed as 4540' long by 188' wide. The gravel strip was covered in snow pack, but was well maintained as seen during the drive around the airfield. The water-landing area is maintained or groomed by airport personnel for winter operations when necessary. The Lake Hood complex has 24/7 tower operations all year and conducts simultaneous operations on both the water lanes and the gravel strip.

b) Sign and Markings: All required signs were in place and visible on the gravel runway and meet FAA sign standards. There are no required signs for the Lake Hood waterlanes.

c) Gravel Strip Area: Additional barriers (concrete or guard rails) have been

placed along the road near the approach end of Rwy 32 to further restrict pedestrians entering the controlled movement area for the gravel strip. New signs are placed in this area also to inform anyone that the area is for aircraft only. The opening will still allow for aircraft taxi operations from the fingers where necessary. Additionally, the walkways along Aircraft Drive require routine plowing to accommodate pedestrian traffic and prevent excessive pedestrian travel in the roadway. Walkway signs are generally in good condition, and most were free of snow or other blockage, and were visible from the road.

d) Airfield Lighting: All airfield lighting appears to be fully operational and in compliance with FAA lighting standards.

e) Airfield Construction: New runway lighting was installed on the gravel strip last year. This year storm drain pipe will be laid through portions of the Alpha, Bravo and Charlie Parking Ramps, as part of a larger Ted Stevens Anchorage International Airport project..

Safety Meeting Proceedings

Tim Coons opened the manager's meeting with a welcome to all participants and a brief explanation of the purpose of the meeting/briefing, which is to increase awareness of incident risk and emphasize overall safety of ground operations at any airport.

Managers Meeting

Ingrid Rinker briefed:

-National Runway Safety trends

Ingrid began the briefing with an overview of the process, runway incursion definitions, and a breakout of the statistics for the 3 main types and 4 categories of RIs that the runway safety office is responsible for tracking. She briefed the current national statistics and trends for the last 5 years and how those years' statistics relate to Lake Hood. The comparison showed a pattern of minimal change in the percentages of the 3 types. It was noted that with the minimal changes, we are mainly concentrating our efforts in the area of potential geographic improvements that will enable safer movement on the surface of the airfield. She stressed the importance of keeping the A & B categories to a minimum while continuing to work on decreasing the overall numbers of incursions.

Ingrid and Tim reviewed the operational errors, pilot deviations and vehicle/pedestrian deviations that occurred at Lake Hood since the last RSAT. They discussed common trends between surface incidents in respect to the location on the airport and what might be done to alleviate the problems. The majority agreed that some additional signage in specific areas could help to reduce future pedestrian crossings.

General Discussion within the group participants:

Lake Hood Winter Operations Status

A new matrix has been distributed by Lake Hood airport that addressed the open/closed status for Lake Hood winter

operations. This matrix has been available throughout the winter season, and the majority agreed that it is working well.

North Pothole Landings

When approaching the North – South waterlane from the North, some aircraft touchdown prior to the entry point of the waterlane. This can cause additional wake around the slips in the North Pothole. It was suggested that a new best practice of delaying the touchdown point for aircraft landing in this area would prevent the potential of aircraft damage from wake in this area.

Landing Lake Spenard from the South

There are times when pilots may request to land from the South on Lake Spenard. Several users requested that this practice be allowed, if ATC is able to grant the request without compromising safety. Some additional training may be required to insure that all Air Traffic Controllers understand when this practice should or should not be allowed.

The Chickaloon departure instructional video was also shown during the meeting. A copy of the video was given to the airport manager for further distribution.

Summary and Conclusions

The Lake Hood Complex is broken out separately from Anchorage International due to the large volume of traffic handled and its uniqueness of operations and community impact/support. Under current Regional Runway Safety guidance, the Airport will conduct an RSAT (local or regional) every year focusing on errors and intervention technologies and education to alleviate them.

The primary concerns at this meeting:

1. Pedestrian signs near high traffic areas, especially during peak pedestrian times such as the Iditarod.
2. Improved signs depicting the pedestrian path near the Millennium Hotel and the south road entry to Aircraft Drive.
3. Timely clearing of snow on the pedestrian walkways.
4. Landing short on in the North Pothole of Lake Hood when utilizing the North / South waterlane.
5. Utilizing the potential for a South bound landing on Lake Spenard.

Recommendations

The following recommendations are proposed for this fiscal year:

No.	Issue	Objective	Recommendation/Task	Responsible Party	Early Start	Late Finish
1						

Prior Action Items

The following action items were closed during the past year. They were discussed for effectiveness during the meeting.

No.	Date of Closure	Recommendation/Task	Responsible Party	Effective?
LHD-2011-002	February 15, 2012	Continue improvements of the pedestrian walk path through the airport to include painting of icons on the walkways and the addition of mileage posts	Airport Manager	Yes
LHD-2011-001	May 31, 2012	Develop a 30 minute training video to orientate pilots in reporting points and ATC phraseology (web based).	FAA Technical Training Division	Yes

Tim Coons

Lake Hood Airport Manager